

Status of New Reactor and Combined License Issues

Industry Briefing of NRC Commission
Oct. 16, 2006



Industry Panel

- Marvin Fertel, Chief Nuclear Officer, NEI
- J. Barnie Beasley, Chairman & President, Southern Nuclear Operating Company
- James J. Sheppard, President, STP Nuclear Operating Company
- Joe C. Turnage, Senior Vice President, Constellation Generation Group
- Eugene S. Grecheck, Vice President, Nuclear Support Services, Dominion Generation



Other Industry Representatives

- Scotty Hinnant, Chief Nuclear Officer, Progress Energy & Chairman of NEI New Plant Working Group
- Steve Byrne, Chief Nuclear Officer, SCANA
- Karl Singer, Chief Nuclear Officer, TVA
- Mike Blevins, Chief Nuclear Officer, TXU
- Randy Hutchinson, Senior Vice President, Entergy Nuclear
- Marilyn Kray, President, NuStart Energy
- John Polcyn, Amarillo Power
- Ron Afflotter, Vice President, Areva
- Steve Hucik, General Manager, GE Energy, Nuclear
- Ed Cummins, Vice President, Westinghouse



Level of Standardization in COL Applications

Average Level of Standardization for All DCWG COL Applications

Standard for All COL Applications	65% - 75%
Standard with Limited Number of Site Specific Differences	10% - 20%
Site Specific Information	5% - 15%
Total	100%

AP1000 Design-Centered Working Group

STATUS REPORT TO
NRC COMMISSIONERS

October 16, 2006

Barnie Beasley

Chairman & President, Southern Nuclear
Operating Company



AP1000 DCWG Interactions

- Pre-Application Meetings Scheduled once every six weeks
 - Purpose: to further define COL application requirements and address key technical issues.
 - Early meetings effective in framing and defining key issues (e.g. application formatting, security, emergency planning).
 - Focus areas for future meetings include:
 - PRA level of detail & COL application level of detail
- Pre-Application “Technical Reports”
 - Purpose is to provide early review of design and open items to promote standardization
 - 34 of 71 Westinghouse and DCWG reports submitted and being reviewed
 - On schedule to submit all reports by mid-2007.



Industry Standardization

- DCWG approach fully embraced
- High levels of standardization in licensing applications
- Design being reviewed to identify further areas where standardization may be achieved
- Operational program descriptions being developed industrywide. Examples include:
 - Training & Security
- Challenges exist to fully complete and articulate guidance and understandings between NRC and industry to assure stability and predictability



ABWR Design-Centered Working Group Status Report

STATUS REPORT TO
NRC COMMISSIONERS

October 16, 2006

Joe Sheppard

President, STP Nuclear Operating Company



ABWR DCWG

- DCWG Principles
 - Minimize departures from DCD
 - Employ generic section templates
 - Optimize regulatory process
- Pre-application meetings with NRC
 - Initial meeting July 27, 2006, Second meeting Oct. 18, 2006
- DCWG Project Design Review Board (PDRB)
 - Charter Completed Sept. 26, 2006
 - First PDRB meeting Sept. 27, 2006
 - Second PDRB meeting Oct. 11, 2006



Overall Schedules

- Quality applications per DG-1145 & SRP could reduce 42-month approval schedule
- Environmental review appears to be critical path
 - Candidate for process improvement consistent with NEPA requirements
- Opportunities to further improve regulatory certainty and licensing effectiveness by incorporating measures used in license renewal & LES licensing proceedings
- Recent LWA rulemaking proposal will ensure regulatory focus is maintained on issues that have safety significance

U.S. EPR Design-Centered Working Group

STATUS REPORT TO
NRC COMMISSIONERS

October 16, 2006

Joe Turnage

Senior Vice President, Constellation Generation Group



Concurrent DCD and COLA Preparation and NRC Review

- Provides unique advantages
 - A higher level of integration between the COL application and DCD texts can be achieved – easier to review
 - Minimizes COL information items
 - Substantial NRC staff interaction (35+ meetings held or being planned)
 - 20+ reports submitted/plan to be submitted
- Presents unique logistical requirements
 - Need to ensure that changes to DCD are properly and timely reflected in COL application and vice versa, as necessary
- Objective is to provide the conditions needed for the NRC to conduct an effective and efficient review of the reference COL application



Generic Issues

- Appreciate NRC expediting the schedule for issuance of essential NRC guidance documents (Reg. Guides & SRPs)
 - Industry – NRC interactions regarding these guidance documents are critical in assuring quality applications
- Timely NRC review and acceptance of digital I&C designs is crucial to the industry
 - Simulators need to be ordered in 2009
 - Each DCWG needs to have an integrated plan with the NRC to ensure issues are identified and resolved on a schedule that meets industry's timetable



ESBWR Design-Centered Working Group

**STATUS REPORT TO
NRC COMMISSIONERS**

October 16, 2006

Eugene S. Grecheck,
Vice President, Dominion Generation



ESBWR DCWG Schedules

- Pre Application meetings
- COLA submittals to NRC:
 - November 2007—Grand Gulf and North Anna
 - ◆ Both applications will reference ESP's
 - May 2008—River Bend (S-COL)
- ESBWR DCD revisions to NRC:
 - October 2006—Revision 2
 - ◆ Design changes and COL item resolution
 - February 2007—Revision 3
 - ◆ Incorporate RAI responses; resolve more COL items
- Concurrent DCD and COL reviews



DG-1145 Perspective

- Commendable effort by the NRC staff
 - Seven workshops yielded improved understandings, interactions need to continue
- Progress made but issues remain, some beyond the scope of DG-1145
 - Plant-specific PRA issues
 - Environmental Report
 - Seismic
- Quality applications: meeting DG-1145 plus the SRP



Conclusion

- NRC staff and industry working on developing predictable implementation processes for Part 52
- Continue to interact on:
 - Developing standardized COL applications
 - SRP Updates and Reg. Guide revisions and development, including DG-1145
 - I&C and Human Factors
 - Making further improvements to the licensing process
 - ◆ LWA rulemaking
- Industry believes that quality COL standardized applications could be reviewed and approved in 27 months
 - Benefit of intensive pre-application interactions (few RAIs)
 - Schedule for approval of second wave of standardized applications should be shorter

